The Boeing Company
6633 Canoga Avenue
P.O. Box 7922
Canoga Park, CA 91309-7922

2000779

CERTIFIED MAIL

February 17, 2003
In reply refer to 2003RC0381

Gerard Abrams
Calif. Environmental Protection Agency
Dept. of Toxic Substances Control
Region 1
Facility Permitting Branch
8800 Cal Center Drive
Sacramento CA 95826-3200

Subject: Santa Susana Field Laboratory Corrective Action Program Quarterly Progress Reports for EPA ID Numbers CAD093365435 (Rocketdyne), CA1800090010 (NASA) and CAD000629972 (DOE)

Dear Mr. Abrams:

The Boeing Company, Rocketdyne (Rocketdyne) has enclosed the following progress reports as required by Hazardous Waste Facility Post-Closure Permits for Rocketdyne and NASA at the Santa Susana Field Laboratory (SSFL). In addition, Rocketdyne has included a progress report for the DOE Corrective Action sites in Area IV. Rocketdyne has submitted the reports in the format as it appears in Attachment I of the Rocketdyne and NASA permits. This reporting period is from November 16, 2002 through February 15, 2003.

Should you have any comments, please do not hesitate to let me know. I can be reached at (818) 586-5695.

Sincerely,

Art Lenox
Environmental Remediation

AJL:bjc
Enclosures

(SHEA-096873)

cc:

A. Elliott/NASA	(with enclosures)
D. Hambrick/MWH	(with enclosures)
T. Chauvel/DTSC	(with enclosures)
S. Baxter/DTSC	(with enclosures)
P. Batarseh/DTSC	(with enclosures)
P. Bailey/DTSC	(with enclosures)
K. Baker/DTSC	(with enclosures)
M. Lopez/DOE/OAK	(with enclosures)
J. Beach/EPA	(with enclosures)
R. Marshall/CSUN, Oviatt Library	(with enclosures)
D. Redfield/Simi Valley Library	(with enclosures)
J. Metzler/LA Public Library, Platt Branch	(with enclosures)

BOEING

Santa Susana Field Laboratory
RFI and CMS Projects
Quarterly Progress Report
EPA ID No. CAD000629972 (Department of Energy)

Rocketdyne Project Manager:	Art Lenox
Contractor Project Manager:	Dixie Hambrick
Report Period:	November 16, 2002 – February 15, 2003

1. PROGRESS MADE THIS REPORT PERIOD

Limited soil sampling was performed this period at DOE RCRA Facility Investigation (RFI) sites. Montgomery Watson Harza (MWH) collected 1 soil matrix sample at 1 DOE site during this reporting period (Table 1). Soil matrix sample analysis was conducted by Ceimic Laboratories, a California-certified laboratory located in Rhode Island. To date, approximately 46 soil vapor (46 analyses) and 229 soil matrix/surface water samples (807 analyses) have been collected from DOE locations during the RFI program (Table 2).

Limited field work for the near-surface groundwater investigation continued this period. Transducers installed at representative DOE shallow piezometer locations were also monitored, and proposed locations of new piezometers were discussed with DTSC. To date, approximately 27 groundwater samples (93 analyses) have been collected from DOE locations during the RFI program (Table 2). Preparation of an update to the August 2001 Shallow Groundwater Technical Memorandum (TM) describing Fall 2000/Spring 2001 investigation findings continued this period. The TM is being updated to include Fall 2001/Spring 2002 results.

Results of spring and seep sampling conducted in June and October 2002 were validated and preparation of a Technical Memorandum began.

Preparation of the draft Building 100 Trench (SWMU 7.5), Metals Laboratory Clarifier (Area IV AOC), and Old Conservation Yard (SWMU 7.4) RFI reports continued.

DTSC, Rocketdyne, and MWH met several times this period to discuss near-surface groundwater and soil investigations, risk assessments, DTSC Hazardous Materials Laboratory (HML) data validation of the RFI samples, preliminary draft RFI reports and the RFI report schedule.

Validation of recent soil samples and conducting a program quality assurance (QA) review of soil sampling data are ongoing.

Infiltration monitoring continued at FSDF (SWMU 7.3) this period.

2. SUMMARY OF FINDINGS

Near-surface groundwater levels rose slightly following rains during December 2002. Total petroleum hydrocarbons (TPH) and polycyclic aromatic hydrocarbons (PAHs) were detected in the samples collected from the Old Conservation Yard RFI site.

3/4 SUMMARY OF PROBLEMS/ACTIONS TAKEN

DTSC continued an independent evaluation of the Columbia Analytical Services (CAS) Laboratory RFI data.

5. PROJECT ACTIVITY NEXT PERIOD

Boeing will be involved with the following RFI activities during the next period:

- Continue to download transducer data at shallow piezometers
- Complete preparation of the updated near-surface groundwater TM
- Install new shallow piezometers at 4 locations and collect groundwater samples
- Complete spring and seep sampling report
- Complete draft Metals Clarifier (AOC), Building 100 Trench (SWMU 7.5), and Old Conservation Yard (SWMU 7.4) RFI reports and submit to DTSC
- Finalize the draft Surficial OU SRAM, Revision 1
- Continue FSDF infiltration monitoring
- Revise Building 56 Landfill investigation work plan

6. PERSONNEL CHANGES

None.

7. SUMMARY OF CONTACTS

None.

8. TREATMENT SYSTEM EFFECTIVENESS

No soil remediation treatment systems are in place or operational at this time.

9. DATA REPORTS SUBMITTED

Perchlorate Source Evaluation and Technical Report, Santa Susana Field Laboratory, Ventura County. October.

Table 1
DOE Sampling Summary
November 16, 2002 - February 15, 2003

UNIT	Facility	MATRIX	Total Samples	Total Analyses	TPH, 8015/BM	PAH, 429M
SWMU 7.4	Old Conservation	S	1	2	1	1
Total Soil			**1**	**2**	**1**	**1**
TOTAL			**1**	**2**	**1**	**1**
S = Soil	V = Vapor					
W = Water	GW = Near-Surface Groundwater					
Note - includes QA samples (water, soil, vapor); does not include samples on hold.						

Table 2
RFI Sampling Summary
May 1998 - February 15, 2003

RFI Soil Matrix Sampling Analysis Summary

OWNER/OPERATOR	Total Samples	Total Anaylses	VOA, 8260	TPH, 8015	VOA, 8021A	SVOA, 8270SIM	SVOA, 8270	Metals, 6010/7000	Mercury, 7471A	Methyl Mercury	Silver, 7761	Lead	Beryllium	Hex Cr, 7196	Flouride, 340.2	ANIONS, 300	PH, 9040/9045	PCBs, 8080/8082	PCBs, 1668	Form, ASTMD19	Perchlorate, 300M	Tributyl Sn	Dioxin, 8290	Dioxin, 1613B	Hydrazine	Ordnance, 8330	SPLP, 1312	Asbestos	LIPIDS	TOC	Arsenic	PAH, 8310	1,4-Dioxane, 8260SIM	Gross Alpha/Beta, 900.0	Gamma Spec, 901.1	Deuterium	Oxygen 18	TDS	PAH, 429M
Rocketdyne	2757	5823	179	1092	646	648	92	922	59	3	10	2	2	84	175	184	737	121	18	193	255	2	120	10	14	130	78	0	2	8	1	2	11	5	5	5	5	5	5
NASA	768	1232	80	370	153	84	18	138	72	2	20	0	0	10	10	19	64	40	8	16	7	0	50	11	0	1	5	5	0	3	0	1	13	7	7	5	5	8	10
DOE	229	807	11	147	50	101	13	149	0	0	1	0	0	2	17	9	118	50	1	0	35	0	52	0	0	4	6	32	0	0	0	0	0	2	2	2	2	1	1
Total	3754	7862	270	1609	849	831	123	1209	131	5	31	2	2	96	202	212	919	211	27	209	297	2	222	21	14	135	89	37	2	11	1	3	24	14	14	12	12	14	16

Notes
Soil, water only-includes pring/seep — No Eco Samples
No LUFT samples — No background samples
No Bell Canyon samples — No samples on hold
Includes all Ogden/MWH samples at RFI sites - June 96 thru present

RFI Soil Vapor Sampling Analysis Summary

OWNER/OPERATOR	Total Active SV Samples	Total Dilutions	Total Active SV Analyses	Total PSV Samp/Anal	Total SV Samples	Total SV Analyses
Rocketdyne	1109	102	1198	8	1117	1206
NASA	387	19	398	14	401	412
DOE	46	0	46	0	46	46
Total	1542	121	1642	22	1564	1664

Notes
Includes HGS, CAL analyses (no TEG) — Includes Gore analyses, no dilutions required
Includes all Ogden/MWH samples at RFI sites - June 96 thru present
Eight active SV analyses performed by Method TO-14A, all remaining analyses performed by Method 8260, modified for vapor

RFI Biotic Sampling Analysis Summary

OWNER/OPERATOR	Total Samples	Total Analyses	SVOC, 8270SIM	Metals, 6010B/7471A	PCBs, 1668	Dioxin, 1613B	LIPIDS
Rocketdyne	20	42	8	0	12	2	20
NASA	25	87	12	24	13	13	25
DOE	0	0	0	0	0	0	0
Total	45	129	20	24	25	15	45

Notes
Includes all Ogden/MWH samples at RFI sites - June 96 thru present

RFI Near-Surface Groundwater Sampling Analysis Summary

OWNER/OPERATOR	Total Samples	Total Analyses	VOA, 8260	TPH, 8015	SVOA, 8270SIM	Metals, 6010/7000	Arsenic	PCBs, 8082	Perchlorate, 300M	1-4 Dioxane, 8260SIM	Dioxin, 8290	Gross Alpha/Beta, 900.0	Gamma Spec, 901.1	Trilium, 906.0	Nitrate	TDS	Ordnance, 8330	Hex Cr, 7196
Rocketdyne	130	226	113	17	17	18	3	6	18	18	6	6	1	1	0	0	5	1
NASA	53	81	49	12	4	3	0	0	0	8	2	1	0	0	1	1	0	0
DOE	27	93	22	10	6	8	0	1	1	0	0	15	15	15	0	0	0	0
Total	210	400	184	39	27	27	3	7	17	26	8	22	16	16	1	1	5	1

Notes
Includes all Ogden/MWH samples at RFI sites - June 96 thru present
Gross Alpha/Beta analyses from 2001 also included on table

Santa Susana Field Laboratory
RFI and CMS Projects
Quarterly Progress Report
EPA ID No. CA1800090010 (NASA)

Rocketdyne Project Manager:	Art Lenox
Contractor Project Manager:	Dixie Hambrick
Report Period:	November 16, 2002 – February 15, 2003

1. PROGRESS MADE THIS REPORT PERIOD

Limited soil sampling was performed this period at NASA RCRA Facility Investigation (RFI) sites. Montgomery Watson Harza (MWH) collected a total of 4 soil vapor and 11 soil matrix samples at 6 NASA sites during this reporting period (Table 1). Soil matrix sample analysis was conducted by Ceimic Laboratories, a California-certified laboratory located in Rhode Island. Soil vapor sample analysis was performed using TO-14A by Severn Trent Laboratories (a California-certified method for soil vapor analysis). To date, approximately 401 soil vapor (412 analyses) and 768 soil matrix/surface water samples (1232 analyses) have been collected from NASA locations during the RFI program (Table 2).

Limited field work for the near-surface groundwater investigation was conducted this period. Transducers installed at representative NASA shallow piezometer locations were monitored, and proposed locations of new piezometers were discussed with DTSC. To date, approximately 53 groundwater samples (81 analyses) have been collected from NASA locations during the RFI program (Table 2). Preparation of an update to the August 2001 Shallow Groundwater Technical Memorandum (TM) describing Fall 2000/Spring 2001 investigation findings continued this period. The TM is being updated to include Fall 2001/Spring 2002 results.

Results of spring and seep sampling conducted in June and October 2002 were validated and preparation of a Technical Memorandum began.

DTSC, Rocketdyne, and MWH met several times this period to discuss the RFI near-surface groundwater and soil investigations, risk assessments, DTSC Hazardous Materials Laboratory (HML) data validation of the RFI samples, preliminary draft RFI reports and the RFI report schedule.

Validation of recent soil samples and conducting a program quality assurance (QA) review of soil sampling data are ongoing.

2. SUMMARY OF FINDINGS

Near-surface groundwater levels rose slightly following rains during December 2002. Volatile organic compounds (VOCs), total petroleum hydrocarbons (TPH), and polycyclic aromatic hydrocarbons (PAHs) were detected in the samples collected from the Alfa/Bravo Fuel Farm, Coca/Delta Fuel Farm, ELV, Building 204, Alfa, and Bravo RFI sites.

3/4 SUMMARY OF PROBLEMS/ACTIONS TAKEN

DTSC continued an independent evaluation of the Columbia Analytical Services (CAS) Laboratory RFI data.

5. PROJECT ACTIVITY NEXT PERIOD

Boeing will be involved with the following RFI activities during the next period:

- Continue data validation for NASA sites
- Continue to download transducer data at shallow piezometers
- Complete preparation of the updated near-surface groundwater TM
- Complete spring and seep sampling report
- Finalize the draft Surficial OU SRAM, Revision 1

6. PERSONNEL CHANGES

None.

7. SUMMARY OF CONTACTS

None.

8. TREATMENT SYSTEM EFFECTIVENESS

No soil remediation treatment systems are in place or operational at this time.

9. DATA REPORTS SUBMITTED

No reports were submitted during this period.

Table 1
NASA Sampling Summary
November 16, 2002 - February 15, 2003

UNIT	Facility	MATRIX	Total Samples	Total Analyses	VOA, TO-14	VOA, 8260	TPH, 8015	SVOA, 8270SIM	PAH, 429M
Area II AOC	Alfa/Bravo FF	S	3	7	0	2	3	0	2
Area II AOC	Alfa/Bravo FF	V	1	1	1	0	0	0	0
Area II AOC	Coca/Delta FF	S	2	5	0	1	2	0	2
Area II AOC	Coca/Delta FF	V	2	2	2	0	0	0	0
SWMU 5.2	ELV (CTL-II)	S	1	2	0	0	1	0	1
SWMU 5.5/AOC	B204 USTs	S	1	2	0	0	1	0	1
SWMU 5.9/10/11	Alfa Area	S	2	4	0	0	2	0	2
SWMU 5.13/14/15	Bravo Area	S	2	6	0	1	2	1	2
SWMU 5.13/14/15	Bravo Area	V	1	1	1	0	0	0	0
Total Soil		**S**	**11**	**26**	**0**	**4**	**11**	**1**	**10**
Total Soil Vapor		**V**	**4**	**4**	**4**	**0**	**0**	**0**	**0**
TOTAL			**15**	**30**	**4**	**4**	**11**	**1**	**10**
S = Soil	V = Vapor by Method TO-14A								
W = Water	GW = Near-Surface Groundwater								
Note - includes QA samples (water, soil, vapor); does not include samples on hold.									

Table 2
RFI Sampling Summary
May 1996 - February 15, 2003

RFI Soil Matrix Sampling Analysis Summary

OWNER/OPERATOR	Total Samples	Total Anaylses	VOA, 8260	TPH, 8015	VOA, 8021A	SVOA, 8270SIM	SVOA, 8270	Metals, 6010/7000	Mercury, 7471A	Methyl Mercury	Silver, 7761	Lead	Beryllium	Hex Cr, 7196	Flouride, 340.2	ANIONS, 300	PH, 9040/9045	PCBs, 8080/8082	PCBs, 1668	Form, ASTMD19	Perchlorate, 300M	Tributyl Sn	Dioxin, 8290	Dioxin, 1613B	Hydrazine	Ordnance, 8330	SPLP, 1312	Asbestos	LIPIDS	TOC	Arsenic	PAH, 8310	1,4-Dioxane, 8260SIM	Gross Alpha/Beta, 900.0	Gamma Spec, 901.1	Deuterium	Oxygen 18	TDS	PAH, 429M
Rocketdyne	2757	5823	179	1092	646	646	92	922	59	3	10	2	2	84	175	184	737	121	18	193	255	2	120	10	14	130	78	0	2	8	1	2	11	5	5	5	5	5	5
NASA	768	1232	80	370	153	84	18	138	72	2	20	0	0	10	10	19	64	40	8	16	7	0	50	11	0	1	5	5	0	3	0	1	13	7	7	5	5	8	10
DOE	229	807	11	147	50	101	13	149	0	0	1	0	0	2	17	9	118	50	1	0	35	0	52	0	0	4	6	32	0	0	0	0	0	2	2	2	2	1	1
Total	3754	7862	270	1609	849	831	123	1209	131	5	31	2	2	96	202	212	919	211	27	209	297	2	222	21	14	135	89	37	2	11	1	3	24	14	14	12	12	14	16

Notes
Soil, water only-includes pring/seep — No Eco Samples
No LUFT samples — No background samples
No Bell Canyon samples — No samples on hold
Includes all Ogden/MWH samples at RFI sites - June 96 thru present

RFI Soil Vapor Sampling Analysis Summary

OWNER/OPERATOR	Total Active SV Samples	Total Dilutions	Total Active SV Analyses	Total PSV Samp/Anal	Total SV Samples	Total SV Analyses
Rocketdyne	1109	102	1198	8	1117	1206
NASA	387	19	398	14	401	412
DOE	46	0	46	0	46	46
Total	1542	121	1642	22	1564	1664

Notes
Includes HGS, CAL analyses (no TEG) — Includes Gore analyses, no dilutions required
Includes all Ogden/MWH samples at RFI sites - June 96 thru present
Eight active SV analyses performed by Method TO-14A, all remaining analyses performed by Method 8260, modified for vapor

RFI Biotic Sampling Analysis Summary

OWNER/OPERATOR	Total Samples	Total Analyses	SVOC, 8270SIM	Metals, 6010B/7471A	PCBs, 1668	Dioxin, 1613B	LIPIDS
Rocketdyne	20	42	8	0	12	2	20
NASA	25	87	12	24	13	13	25
DOE	0	0	0	0	0	0	0
Total	45	129	20	24	25	15	45

Notes
Includes all Ogden/MWH samples at RFI sites - June 96 thru present

RFI Near-Surface Groundwater Sampling Analysis Summary

OWNER/OPERATOR	Total Samples	Total Analyses	VOA, 8260	TPH, 8015	SVOA, 8270SIM	Metals, 6010/7000	Arsenic	PCBs, 8082	Perchlorate, 300M	1-4 Dioxane, 8260SIM	Dioxin, 8290	Gross Alpha/Beta, 900.0	Gamma Spec, 901.1	Tritium, 906.0	Nitrate	TDS	Ordnance, 8330	Hex Cr, 7196
Rocketdyne	130	226	113	17	17	16	3	6	16	18	6	6	1	1	0	0	5	1
NASA	53	81	49	12	4	3	0	0	0	8	2	1	0	0	1	1	0	0
DOE	27	93	22	10	6	8	0	1	1	0	0	15	15	15	0	0	0	0
Total	210	400	184	39	27	27	3	7	17	26	8	22	16	16	1	1	5	1

Notes
Includes all Ogden/MWH samples at RFI sites - June 96 thru present
Gross Alpha/Beta analyses from 2001 also included on table

Santa Susana Field Laboratory
RFI and CMS Projects
Quarterly Progress Report
EPA ID No.CAD 093365435 (Rocketdyne)

Rocketdyne Project Manager:	Art Lenox
Contractor Project Manager:	Dixie Hambrick
Report Period:	November 16, 2002 – February 15, 2003

1. PROGRESS MADE THIS REPORT PERIOD

Limited soil sampling was performed at Rocketdyne sites this period for the RCRA Facility Investigation (RFI). Montgomery Watson Harza (MWH) collected a total of 4 soil vapor and 6 soil matrix samples at 2 Rocketdyne sites during this reporting period (Table 1). Soil matrix sample analysis was conducted by Ceimic Laboratories, a California-certified laboratory located in Rhode Island. Soil vapor sample analysis was performed using TO-14A by Severn Trent Laboratories (a California-certified method for soil vapor analysis). To date, approximately 1117 soil vapor (1204 analyses) and 2757 soil matrix/surface water samples (5823 analyses) have been collected from Rocketdyne locations during the RFI program (Table 2).

Limited field work for the near-surface groundwater investigation was conducted this period. Transducers installed at representative Rocketdyne shallow piezometer locations were monitored, and proposed locations of new piezometers were discussed with DTSC. To date, approximately 130 groundwater samples (226 analyses) have been collected from Rocketdyne locations during the RFI program (Table 2). Preparation of an update to the August 2001 Shallow Groundwater Technical Memorandum (TM) describing Fall 2000/Spring 2001 investigation findings continued this period. The TM is being updated to include Fall 2001/Spring 2002 results.

Results of spring and seep sampling conducted in June and October 2002 were validated and preparation of a Technical Memorandum began.

Preparation of the draft B-1 Area (SWMU 4.1) and Instrument and Equipment Laboratories (SWMUs 4.3, 4.4) RFI reports began.

DTSC, Rocketdyne, and MWH met several times this period to discuss the RFI near-surface groundwater and soil investigations, risk assessments, DTSC Hazardous Materials Laboratory (HML) data validation of the RFI samples, preliminary draft RFI reports and the RFI report schedule.

Validation of recent soil and water samples and conducting a program quality assurance (QA) review of soil sampling data are ongoing.

2. SUMMARY OF FINDINGS

Near-surface groundwater levels rose slightly following rains during December 2002. Volatile organic compounds (VOCs), total petroleum hydrocarbons (TPH), and polycyclic aromatic hydrocarbons (PAHs) were detected in the samples collected from the B-1 and Bowl RFI sites.

3/4 SUMMARY OF PROBLEMS/ACTIONS TAKEN

DTSC continued an independent evaluation of the Columbia Analytical Services (CAS) Laboratory RFI data.

5. PROJECT ACTIVITY NEXT PERIOD

Boeing will be involved with the following RFI activities during the next period:

- Continue data validation for Rocketdyne sites
- Continue to download transducer data at shallow piezometers
- Complete preparation of the updated near-surface groundwater TM
- Install new shallow piezometers at 2-3 locations and collect groundwater samples
- Complete spring and seep sampling report
- Finalize the draft Surficial OU SRAM, Revision 1

6. PERSONNEL CHANGES

None.

7. SUMMARY OF CONTACTS

None.

8. TREATMENT SYSTEM EFFECTIVENESS

No soil remediation treatment systems are in place or operational at this time.

9. DATA REPORTS SUBMITTED

Perchlorate Source Evaluation and Technical Report, Santa Susana Field Laboratory, Ventura County. February.

Table 1
Rocketdyne Sampling Summary
November 16, 2002 - February 15, 2003

UNIT	Facility	MATRIX	Total Samples	Total Analyses	VOA, TO-14	VOA, 8260	TPH, 8015	SVOA, 8270SIM	Metals, 6010/7000	PAH, 429M
SWMU 4.1	B-1 Area	S	2	7	0	2	2	1	1	1
SWMU 4.1	B-1 Area	V	2	2	2	0	0	0	0	0
SWMU 4.15/AOC	Bowl Area	S	4	12	0	3	4	1	0	4
SWMU 4.15/AOC	Bowl Area	V	2	2	2	0	0	0	0	0
Total Soil		**S**	**6**	**19**	**0**	**5**	**6**	**2**	**1**	**5**
Total Soil Vapor		**V**	**4**	**4**	**4**	**0**	**0**	**0**	**0**	**0**
TOTAL			**10**	**23**	**4**	**5**	**6**	**2**	**1**	**5**
S = Soil	V = Vapor by Method TO-14A									
W = Water	GW = Near-Surface Groundwater									
Note - includes QA samples (water, soil, vapor); does not include samples on hold.										

Table 2
RFI Sampling Summary
May 1996 - February 15, 2003

RFI Soil Matrix Sampling Analysis Summary

OWNER/OPERATOR	Total Samples	Total Anaylses	VOA, 8260	TPH, 8015	VOA, 8021A	SVOA, 8270SIM	SVOA, 8270	Metals, 6010/7000	Mercury, 7471A	Methyl Mercury	Silver, 7761	Lead	Beryllium	Hex Cr, 7196	Flouride, 340.2	ANIONS, 300	PH, 9040/9045	PCBs, 8080/8082	PCBs, 1668	Form, ASTMD19	Perchlorate, 300M	Tributyl Sn	Dioxin, 8290	Dioxin, 1613B	Hydrazine	Ordnance, 8330	SPLP, 1312	Asbestos	LIPIDS	TOC	Arsenic	PAH, 8310	1,4-Dioxane, 8260SIM	Gross Alpha/Beta, 900.0	Gamma Spec, 901.1	Deuterium	Oxygen 18	TDS	PAH, 429M
Rocketdyne	2757	5823	179	1092	646	646	92	922	59	3	10	2	2	84	175	184	737	121	18	193	255	2	120	10	14	130	78	0	2	8	1	2	11	5	5	5	5	5	5
NASA	768	1232	80	370	153	84	18	138	72	2	20	0	0	10	10	19	64	40	8	16	7	0	50	11	0	1	5	5	0	3	0	1	13	7	7	5	5	8	10
DOE	229	807	11	147	50	101	13	149	0	0	1	0	0	2	17	9	118	50	1	0	35	0	52	0	0	4	6	32	0	0	0	0	0	2	2	2	2	1	1
Total	3754	7862	270	1609	849	831	123	1209	131	5	31	2	2	96	202	212	919	211	27	209	297	2	222	21	14	135	89	37	2	11	1	3	24	14	14	12	12	14	16

Notes
Soil, water only-Includes pring/seep — No Eco Samples
No LUFT samples — No background samples
No Bell Canyon samples — No samples on hold
Includes all Ogden/MWH samples at RFI sites - June 96 thru present

RFI Soil Vapor Sampling Analysis Summary

OWNER/OPERATOR	Total Active SV Samples	Total Dilutions	Total Active SV Analyses	Total PSV Samp/Anal	Total SV Samples	Total SV Analyses
Rocketdyne	1109	102	1198	8	1117	1206
NASA	387	19	398	14	401	412
DOE	46	0	46	0	46	46
Total	1542	121	1642	22	1564	1664

Notes
Includes HGS, CAL analyses (no TEG) — Includes Gore analyses, no dilutions required
Includes all Ogden/MWH samples at RFI sites - June 96 thru present
Eight active SV analyses performed by Method TO-14A, all remaining analyses performed by Method 8260, modified for vapor

RFI Biotic Sampling Analysis Summary

OWNER/OPERATOR	Total Samples	Total Analyses	SVOC, 8270CSIM	Metals, 6010B/7471A	PCBs, 1668	Dioxin, 1613B	LIPIDS
Rocketdyne	20	42	8	0	12	2	20
NASA	25	87	12	24	13	13	25
DOE	0	0	0	0	0	0	0
Total	45	129	20	24	25	15	45

Notes
Includes all Ogden/MWH samples at RFI sites - June 96 thru present

RFI Near-Surface Groundwater Sampling Analysis Summary

OWNER/OPERATOR	Total Samples	Total Analyses	VOA, 8260	TPH, 8015	SVOA, 8270SIM	Metals, 6010/7000	Arsenic	PCBs, 8082	Perchlorate, 300M	1-4 Dioxane, 8260SIM	Dioxin, 8290	Gross Alpha/Beta, 900.0	Gamma Spec, 901.1	Tritium, 906.0	Nitrate	TDS	Ordnance, 8330	Hex Cr, 7196
Rocketdyne	130	226	113	17	17	16	3	6	16	18	6	8	1	1	0	0	5	1
NASA	53	81	49	12	4	3	0	0	0	8	2	1	0	0	1	1	0	0
DOE	27	93	22	10	6	8	0	1	1	0	0	15	15	15	0	0	0	0
Total	210	400	184	39	27	27	3	7	17	26	8	22	16	16	1	1	5	1

Notes
Includes all Ogden/MWH samples at RFI sites - June 96 thru present
Gross Alpha/Beta analyses from 2001 also included on table